ABSTRACT

SPEECH PROCESSING SYSTEM

A system is provided for detecting the presence of speech within an input audio signal. The system includes a memory for storing a predetermined function which gives, for a given set of audio signal values, a probability density for parameters of a predetermined speech model which is assumed to have generated the set of audio signal values, the probability density defining, for a given set of model parameter values, the probability that the predetermined speech model has those parameter values given that the speech model is assumed to have generated the set of audio signal values. The system applies a current set of received signal values to the stored probability density function and then draws samples from it using a Gibbs sampler. The system then analyses the samples to determine a set parameter values representative of the audio signal. The system then uses these parameter values to determine whether or not speech is present within the audio signals.